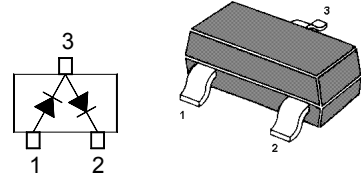


Silicon Epitaxial Planar Switching Diode

Features

- Fast switching speed
- High Conductance



Marking Code: **A7**
 SOT-23 Plastic Package

Applications

- For general purpose switching

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	100	V
Forward Current	I_F	200	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	1 2	A
		at $t = 1\text{ s}$ at $t = 1\text{ }\mu\text{s}$	
Power Dissipation	P_d	350	mW
Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	100	-	V
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 150\text{ mA}$	V_F	0.55 0.67 0.75 -	0.7 0.82 1.1 1.25	V
Reverse Current at $V_R = 50\text{ V}$ at $V_R = 100\text{ V}$ at $V_R = 50\text{ V}, T_j = 125\text{ }^\circ\text{C}$	I_R	- - -	1 3 100	μA
Total Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$	C_T	-	2	pF
Reverse Recovery Time at $I_F = I_R = 10\text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100\text{ }\Omega$	t_{rr}	-	4	ns

MMBD7000

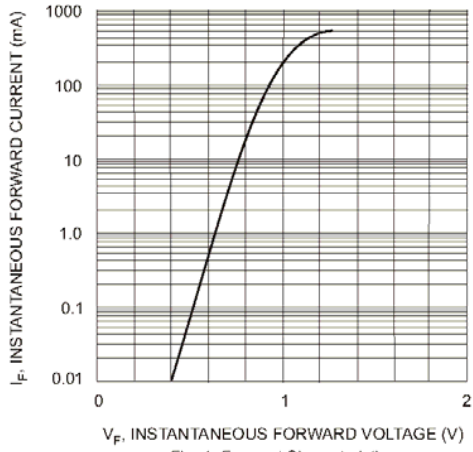


Fig. 1 Forward Characteristics

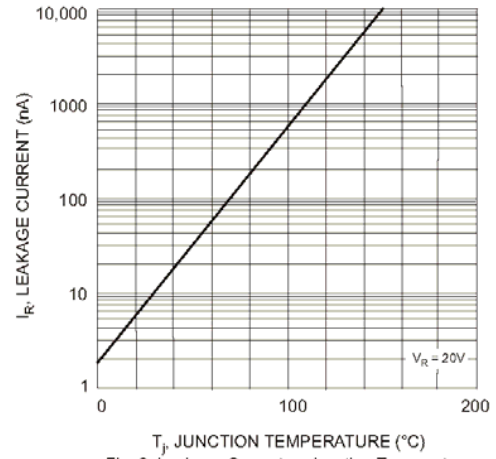


Fig. 2 Leakage Current vs Junction Temperature

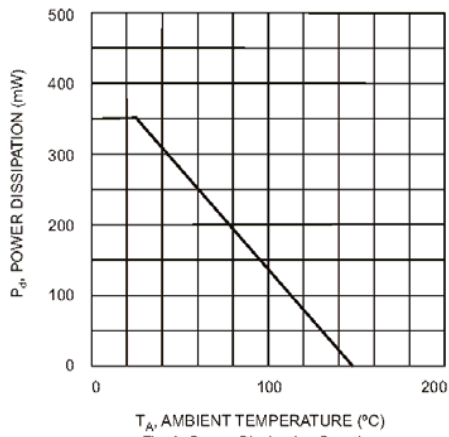


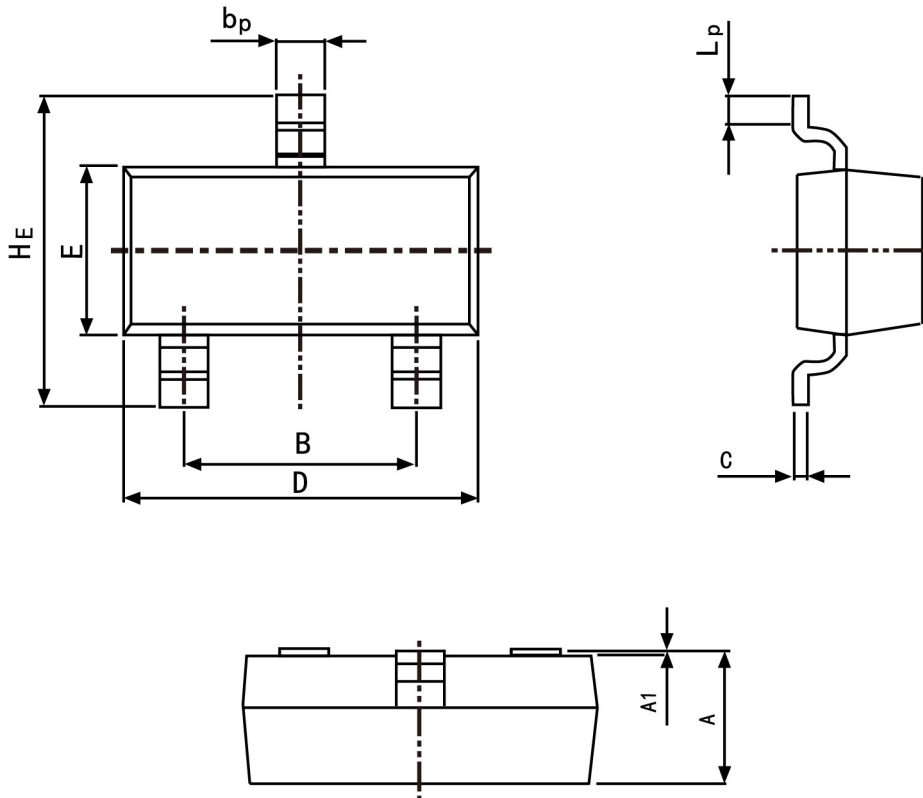
Fig. 3 Power Dissipation Derating

MMBD7000

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.40
B	1.78	2.04
b_p	0.35	0.50
C	0.08	0.19
D	2.70	3.10
E	1.20	1.65
HE	2.20	3.00
A_1	0.100	0.013
L_p	0.20	0.50